

109455

Access DB#

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: JON WEBER Examiner #: BQ509 Date: 02 DEC 03
 Art Unit: 1651 Phone Number 308 4015 Serial Number: 10 067495
 Mail Box and Bldg/Room Location: 11 B01 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Glycosyltransferase Inhibitors
 Inventors (please provide full names): Benjamin A Horenstein, Hongbin Sun

Earliest Priority Filing Date: 02/02/2001

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Please search compounds of Claims, especially 1-5.
 See Fig 4A for exemplary compounds.*

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>JARRELL</u>	NA Sequence (#) _____	STN <u>\$391</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: <u>F</u>	Structure (#) <u>5</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>12/03/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>180 MIN</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>100 MIN</u>	Other _____	Other (specify) _____

=> b reg

FILE 'REGISTRY' ENTERED AT 10:48:29 ON 03 DEC 2003

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DICTIONARY FILE UPDATES: 2 DEC 2003 HIGHEST RN 622845-74-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

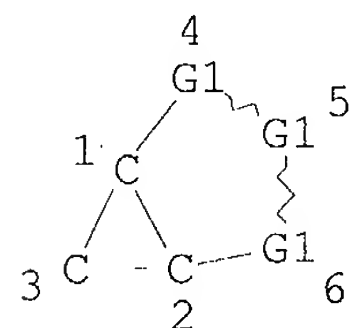
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d stat que l10

L9 STR



VAR G1=C/O/S/N

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L10 5 SEA FILE=REGISTRY SSS SAM L9

0.9% PROCESSED 1000 ITERATIONS

5 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
 BATCH **INCOMPLETE**

PROJECTED ITERATIONS: EXCEEDS 1000000

PROJECTED ANSWERS: EXCEEDS 9973

Structure too broad to search. Adding R groups did not help.

=> => b reg
 FILE 'REGISTRY' ENTERED AT 10:52:17 ON 03 DEC 2003
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STRUCTURE FILE UPDATES: 2 DEC 2003 HIGHEST RN 622845-74-3
 DICTIONARY FILE UPDATES: 2 DEC 2003 HIGHEST RN 622845-74-3

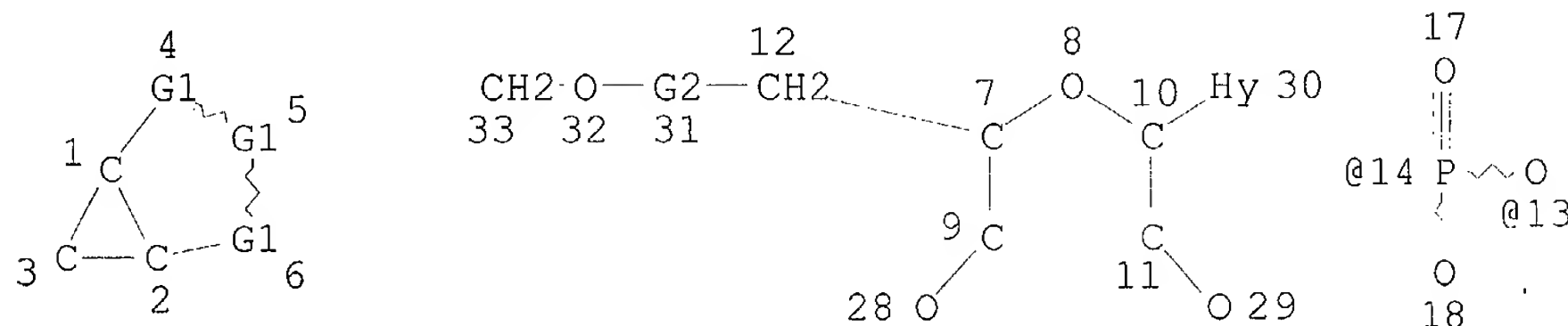
TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
 PROPERTIES for more information. See STNote 27, Searching Properties
 in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d que stat l14
 L11 STR



VAR G1=C/O/S/N
 REP G2=(1-2) 14-32 13-12
 NODE ATTRIBUTES:
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 GGCAT IS UNS AT 30
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS M1-X4 N AT 30

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
 L14 8 SEA FILE=REGISTRY SSS FUL L11

100.0% PROCESSED 1727 ITERATIONS
 SEARCH TIME: 00.00.01

Structure Search was narrowed
 by ~~presence~~ forcing nucleotide
 to be present anywhere in structure
 (where point of attachment is not
 specified)

8 ANSWERS

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FILE COVERS 1907 - 3 Dec 2003 VOL 139 ISS 23
FILE LAST UPDATED: 2 Dec 2003 (20031202/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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=> d que nos l15
L11          STR
L14          8 SEA FILE=REGISTRY SSS FUL L11
L15          2 SEA FILE=CAPLUS ABB=ON PLU=ON L14
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=> b uspatfull
FILE 'USPATFULL' ENTERED AT 10:53:00 ON 03 DEC 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 2 Dec 2003 (20031202/PD)
FILE LAST UPDATED: 2 Dec 2003 (20031202/ED)
HIGHEST GRANTED PATENT NUMBER: US6658663
HIGHEST APPLICATION PUBLICATION NUMBER: US2003221233
CA INDEXING IS CURRENT THROUGH 2 Dec 2003 (20031202/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 2 Dec 2003 (20031202/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2003
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>>> USPAT2 is now available.  USPATFULL contains full text of the  <<<
>>> original, i.e., the earliest published granted patents or  <<<
>>> applications.  USPAT2 contains full text of the latest US  <<<
>>> publications, starting in 2001, for the inventions covered in  <<<
>>> USPATFULL.  A USPATFULL record contains not only the original  <<<
>>> published document but also a list of any subsequent  <<<
>>> publications.  The publication number, patent kind code, and  <<<
>>> publication date for all the US publications for an invention  <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL  <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc.  <<<
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>>> USPATFULL and USPAT2 can be accessed and searched together  <<<
>>> through the new cluster USPATALL.  Type FILE USPATALL to  <<<
>>> enter this cluster.  <<<
>>>  <<<
>>> Use USPATALL when searching terms such as patent assignees,  <<<
>>> classifications, or claims, that may potentially change from  <<<
>>> the earliest to the latest publication.  <<<
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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que nos l16

L11 STR
L14 8 SEA FILE=REGISTRY SSS FUL L11
L16 1 SEA FILE=USPATFULL ABB=ON PLU=ON L14

=> dup rem l15 l16

FILE 'CAPLUS' ENTERED AT 10:53:31 ON 03 DEC 2003
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PROCESSING COMPLETED FOR L15
PROCESSING COMPLETED FOR L16
L18 3 DUP REM L15 L16 (0 DUPLICATES REMOVED)

=> d ibib abs hitstr 1-3

L18 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:615635 CAPLUS
DOCUMENT NUMBER: 137:163831
TITLE: Inhibitors of glycosyltransferase enzymes
INVENTOR(S): Horenstein, Benjamin A.; Sun, Hongbin
PATENT ASSIGNEE(S): The University of Florida, USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062814	A1	20020815	WO 2002-US3348	20020204
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002111496	A1	20020815	US 2002-67495	20020204
PRIORITY APPLN. INFO.:			US 2001-266128P	P 20010202

OTHER SOURCE(S): MARPAT 137:163831

AB The subject invention provides compds. and methods of producing compds., which are useful inhibitors of glycosyltransferase enzymes. These compds. represent a new class of glycosyltransferase inhibitors and are potent inhibitors of sialyltransferases. The subject invention also provides methods of treating diseases or conditions associated with glycosyltransferases. Methods of modulating the activity of glycosyltransferases are also provided.

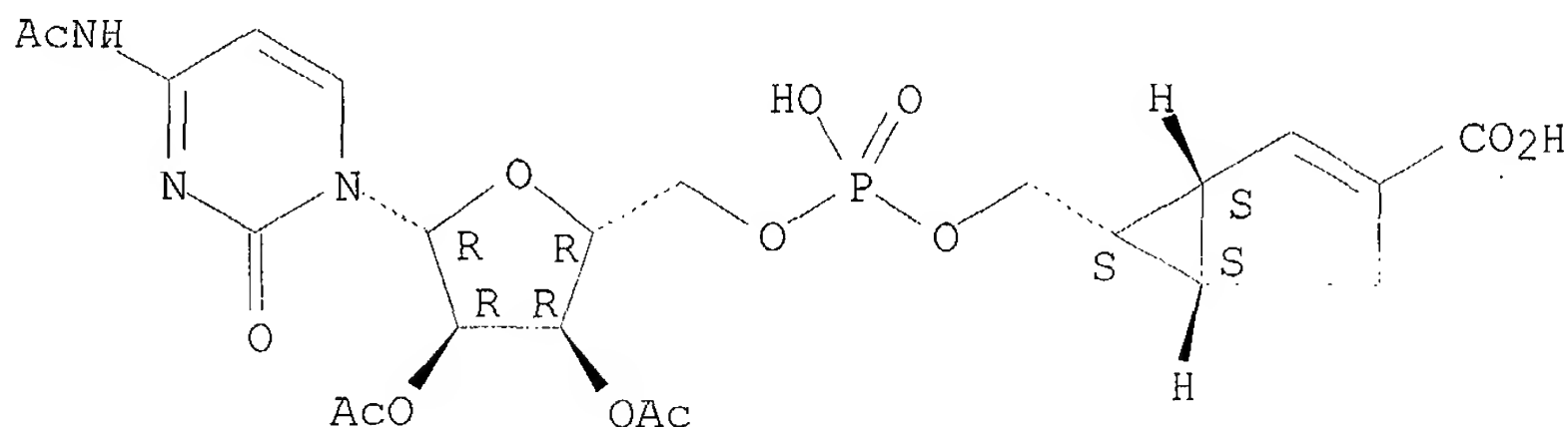
IT 446233-49-4 446233-50-7

RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use);
 BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (inhibitors of glycosyltransferase enzymes in relation to treatment of
 diseases)

RN 446233-49-4 CAPLUS

CN 5'-Cytidylic acid, N-acetyl-, mono[[(1S,5S,6S)-3-carboxybicyclo[3.1.0]hex-
 2-en-6-yl]methyl] ester, 2',3'-diacetate, disodium salt (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.

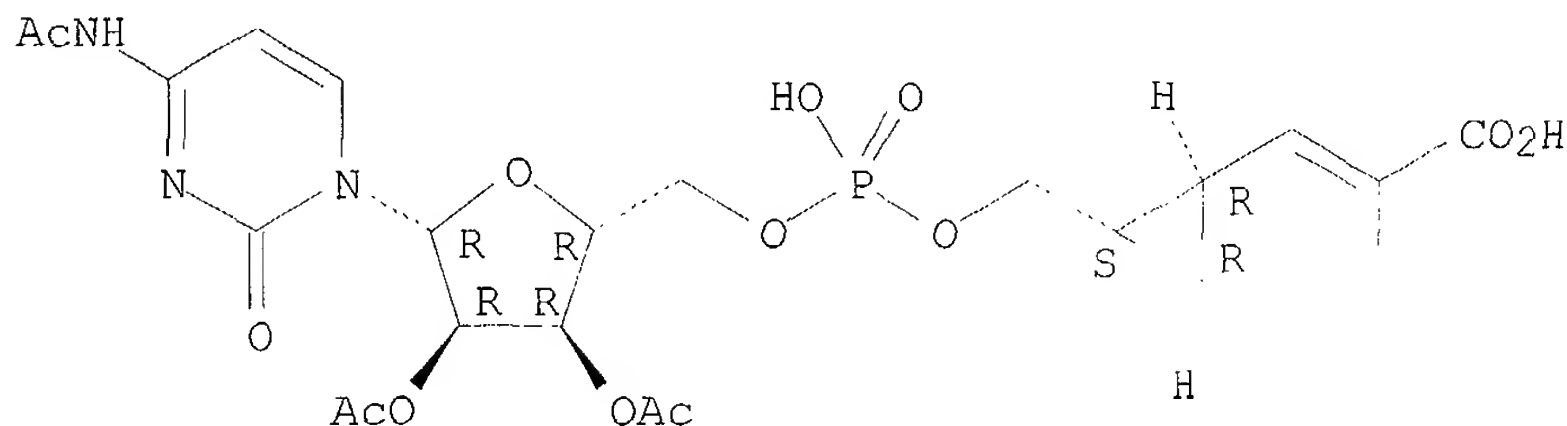


● 2 Na

RN 446233-50-7 CAPLUS

CN 5'-Cytidylic acid, N-acetyl-, mono[[(1R,5R,6S)-3-carboxybicyclo[3.1.0]hex-
 2-en-6-yl]methyl] ester, 2',3'-diacetate, disodium salt (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



● 2 Na

IT 340006-48-6P 340006-50-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (inhibitors of glycosyltransferase enzymes in relation to treatment of
 diseases)

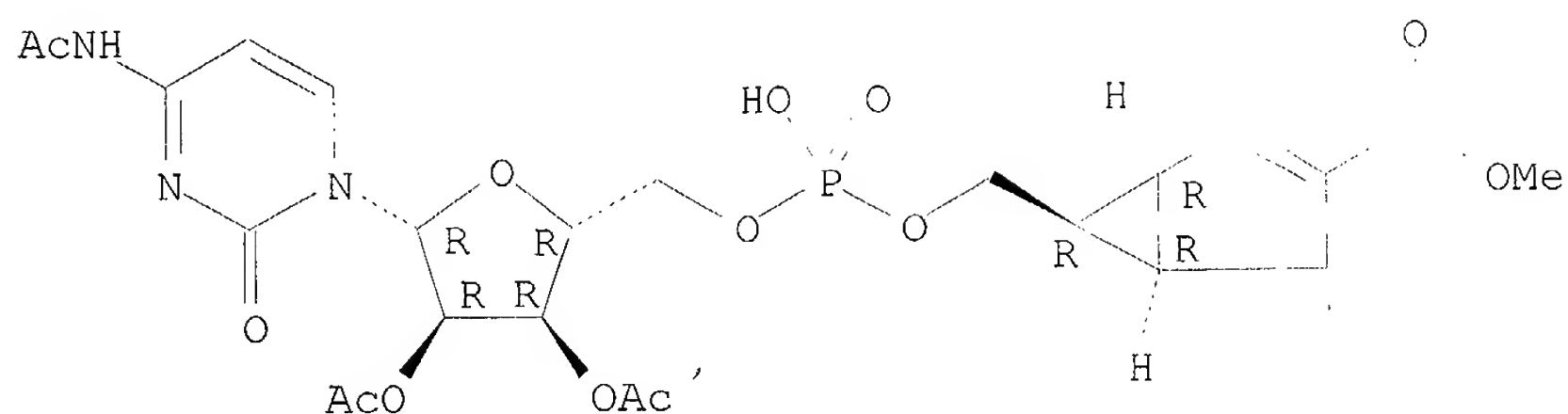
RN 340006-48-6 CAPLUS

CN 5'-Cytidylic acid, N-acetyl-, mono[[(1R,5R,6R)-3-
 (methoxycarbonyl)bicyclo[3.1.0]hex-2-en-6-yl]methyl] ester,
 2',3'-diacetate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX
 NAME)

CM 1

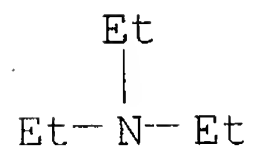
CRN 340006-47-5
CMF C24 H30 N3 O13 P

Absolute stereochemistry.



CM 2

CRN 121-44-8
CMF C6 H15 N

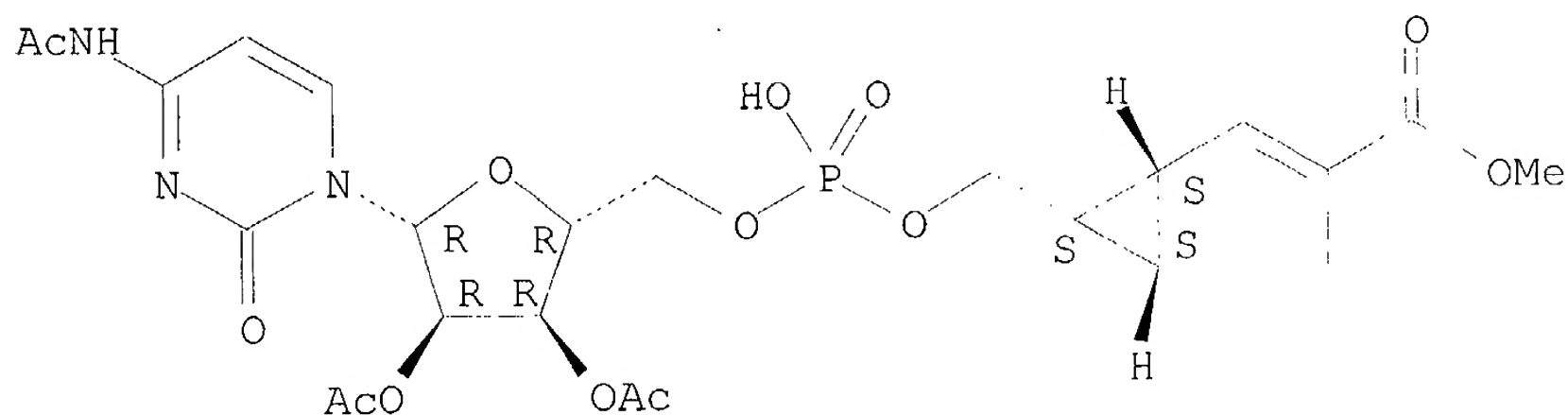


RN 340006-50-0 CAPLUS
CN 5'-Cytidylic acid, N-acetyl-, mono[[(1S,5S,6S)-3-(methoxycarbonyl)bicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

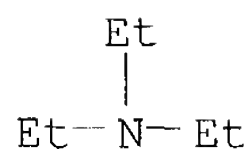
CRN 340006-49-7
CMF C24 H30 N3 O13 P

Absolute stereochemistry.



CM 2

CRN 121-44-8
CMF C6 H15 N



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2002:206795 USPATFULL

TITLE: Inhibitors of glycosyltransferase enzymes

INVENTOR(S): Horenstein, Benjamin A., Gainesville, FL, UNITED STATES
Sun, Hongbin, Gainesville, FL, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002111496	A1	20020815
APPLICATION INFO.:	US 2002-67495	A1	20020204 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-266128P	20010202 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W. 41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	511	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The subject invention provides compounds and methods of producing compounds, which are useful inhibitors of glycosyltransferase enzymes. These compounds represent a new class of glycosyltransferase inhibitors and are potent inhibitors of sialyltransferase. The subject invention also provides methods of treating diseases or conditions associated with glycosyltransferases. Methods of modulating the activity of glycosyltransferases are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

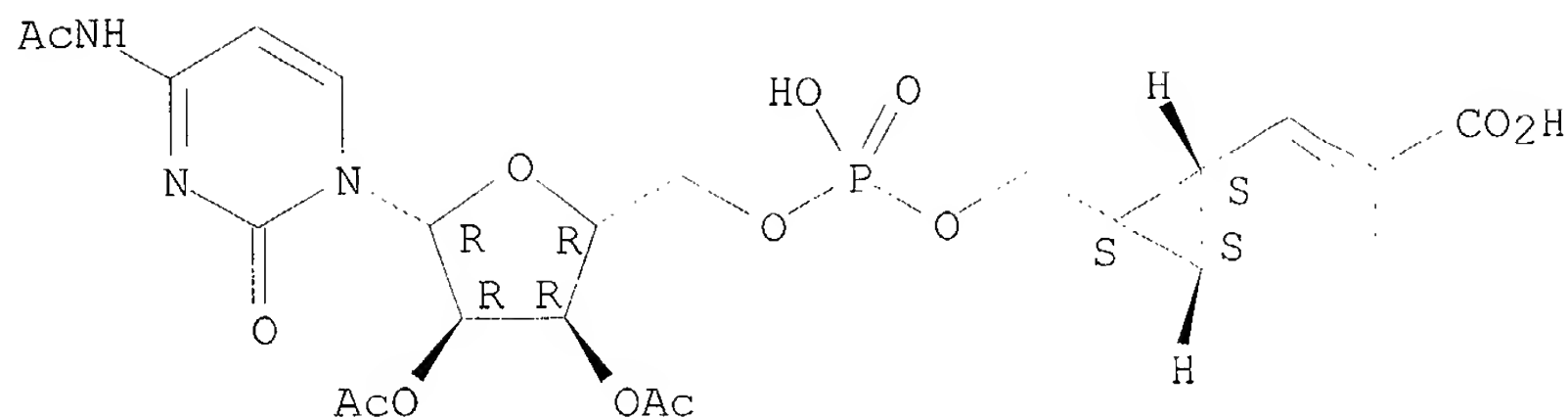
IT 446233-49-4 446233-50-7

(inhibitors of glycosyltransferase enzymes in relation to treatment of diseases)

RN 446233-49-4 USPATFULL

CN 5'-Cytidylic acid, N-acetyl-, mono[[(1S,5S,6S)-3-carboxybicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

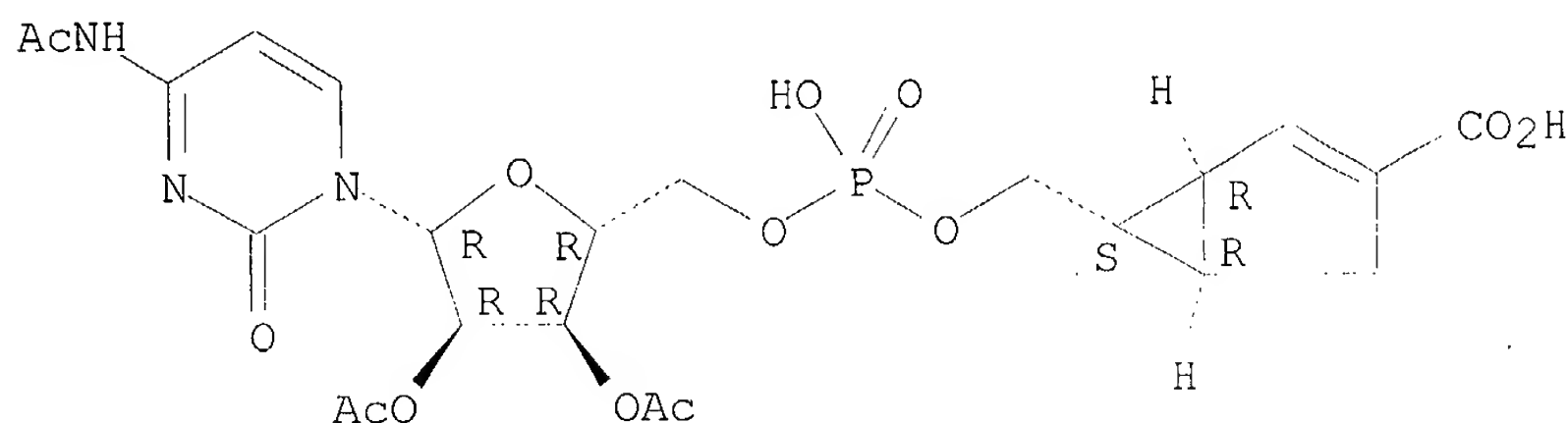


● 2 Na

RN 446233-50-7 USPATFULL

CN 5'-Cytidylic acid, N-acetyl-, mono[[(1R,5R,6S)-3-carboxybicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 2 Na

IT 340006-48-6P 340006-50-0P

(inhibitors of glycosyltransferase enzymes in relation to treatment of diseases)

RN 340006-48-6 USPATFULL

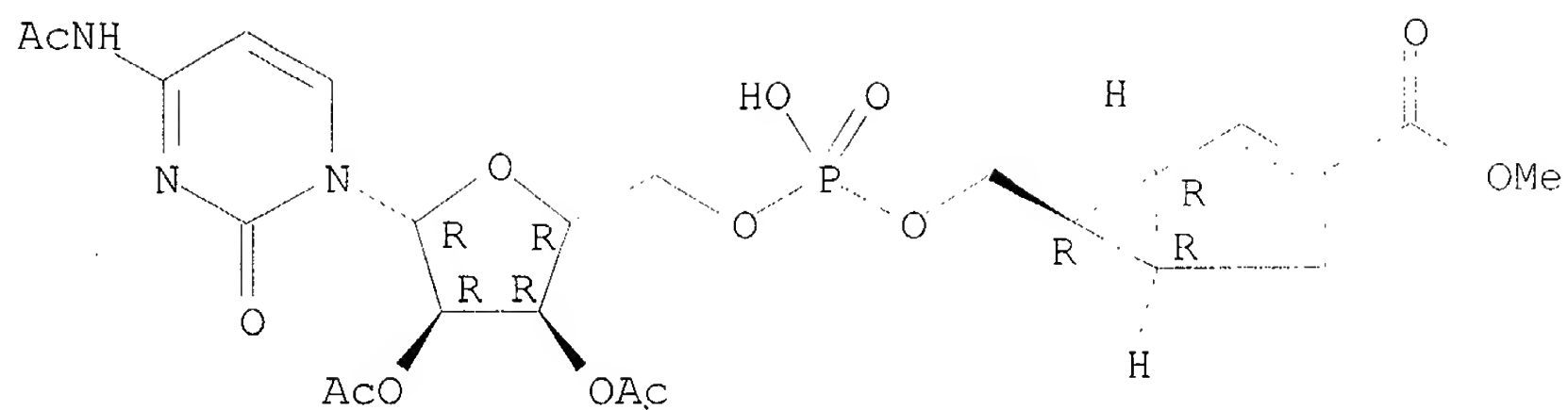
CN 5'-Cytidylic acid, N-acetyl-, mono[[(1R,5R,6R)-3-(methoxycarbonyl)bicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

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CRN 340006-47-5

CMF C24 H30 N3 O13 P

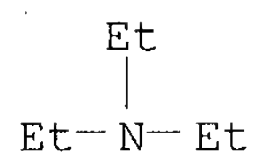
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



RN 340006-50-0 USPATFULL

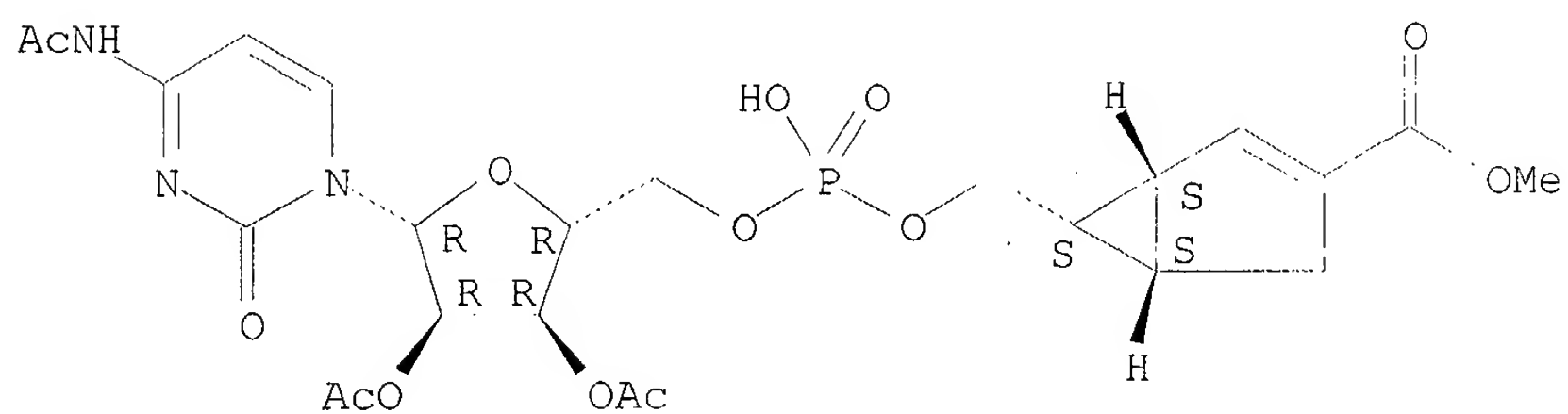
CN 5'-Cytidylic acid, N-acetyl-, mono[[[(1S,5S,6S)-3-(methoxycarbonyl)bicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 340006-49-7

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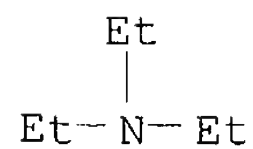
Absolute stereochemistry.



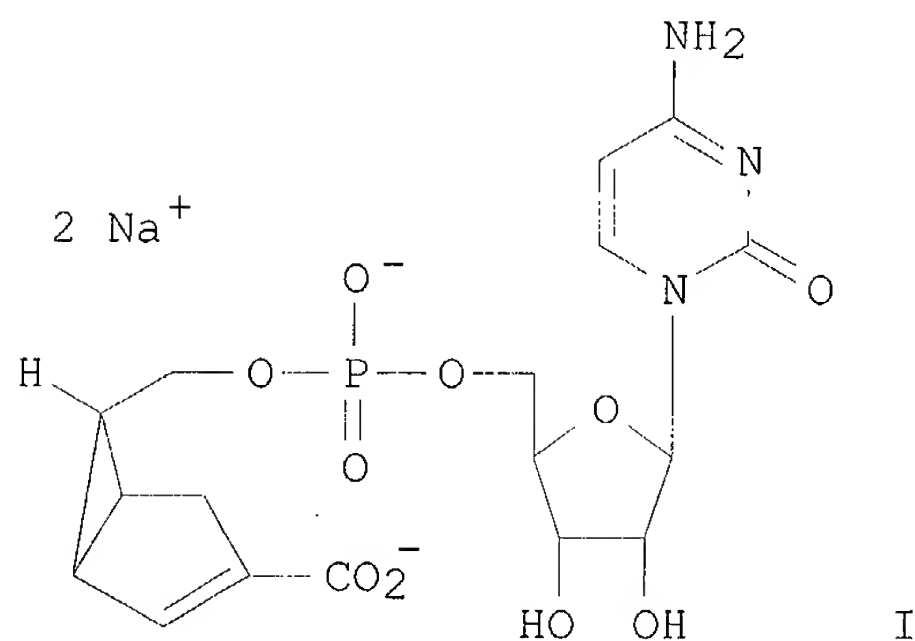
CM 2

CRN 121-44-8

CMF C6 H15 N



L18 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2001:206984 CAPLUS
 DOCUMENT NUMBER: 134:367121
 TITLE: Synthesis of a new transition-state analog of the
 sialyl donor. Inhibition of sialyltransferases
 AUTHOR(S): Sun, H.; Yang, J.; Amaral, K. E.; Horenstein, B. A.
 CORPORATE SOURCE: Department of Chemistry, University of Florida,
 Gainesville, FL, 32611-7200, USA
 SOURCE: Tetrahedron Letters (2001), 42(13), 2451-2453
 CODEN: TELEAY; ISSN: 0040-4039
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 134:367121
 GI



AB A new class of glycosyltransferase inhibitor has been designed and synthesized. The designed inhibitors nucleotides, e.g. I, provide conformational mimicry of the transition state in sialyltransfer reactions. The key synthetic steps involve a Meinwald rearrangement and a palladium-catalyzed carbonylation reaction. The results of kinetic studies show that I exhibit significant inhibition on both 2,3- and 2,6-sialyltransferases.

IT **340006-51-1P 340006-52-2P**

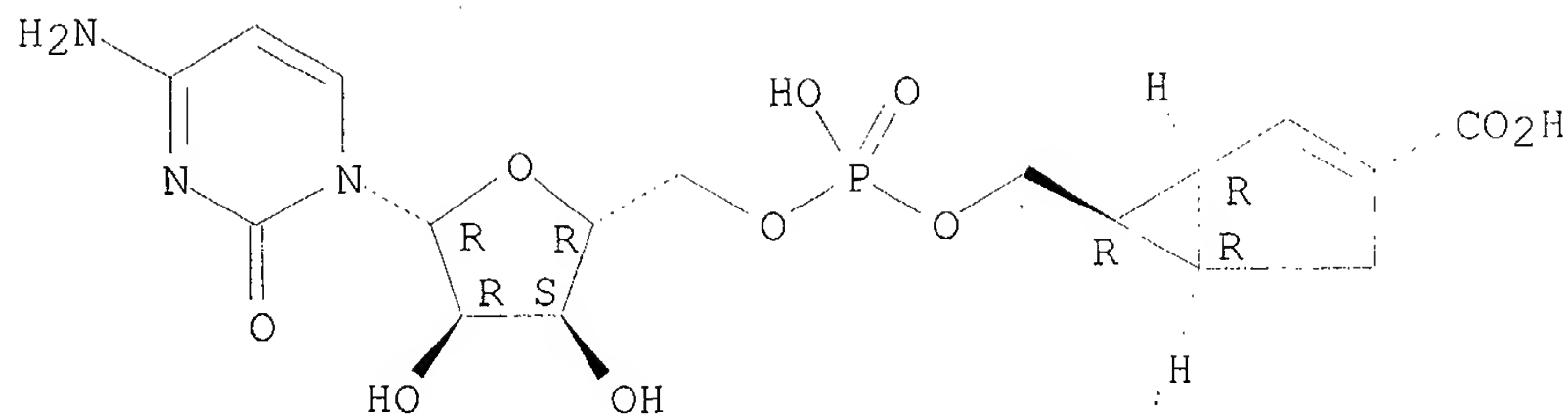
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of a nucleotides analog of the sialyl donor as inhibitor of sialyltransferases via Meinwald rearrangement and a palladium-catalyzed carbonylation reactions)

RN 340006-51-1 CAPLUS

CN 5'-Cytidylic acid, mono[[(1S,5R,6R)-3-carboxybicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, disodium salt (9CI) (CA INDEX NAME)

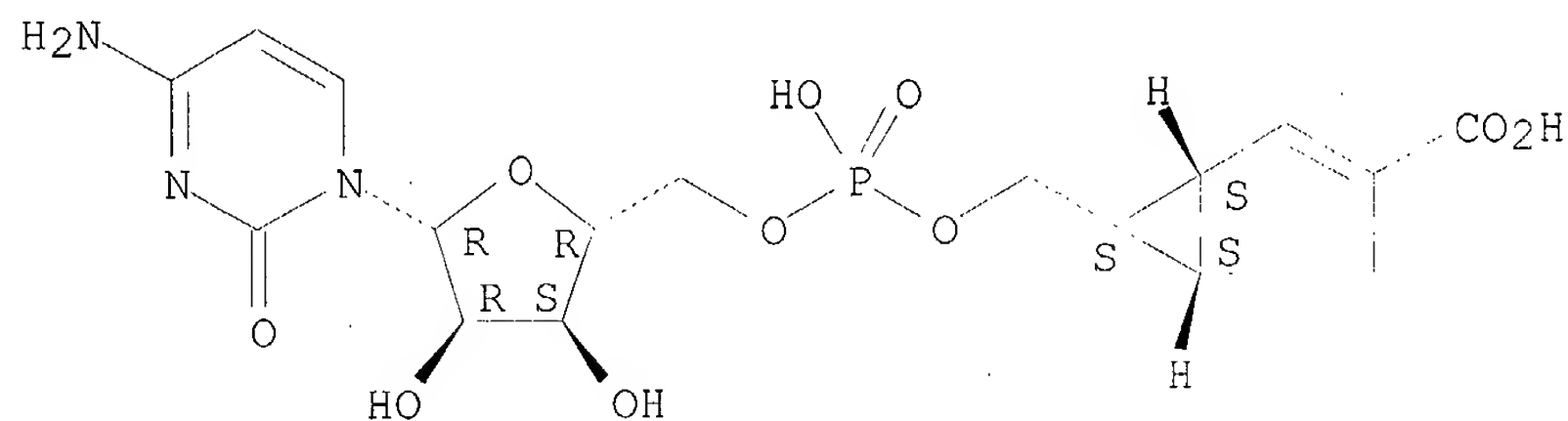
Absolute stereochemistry.



●2 Na

RN 340006-52-2 CAPLUS
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Absolute stereochemistry.



●2 Na

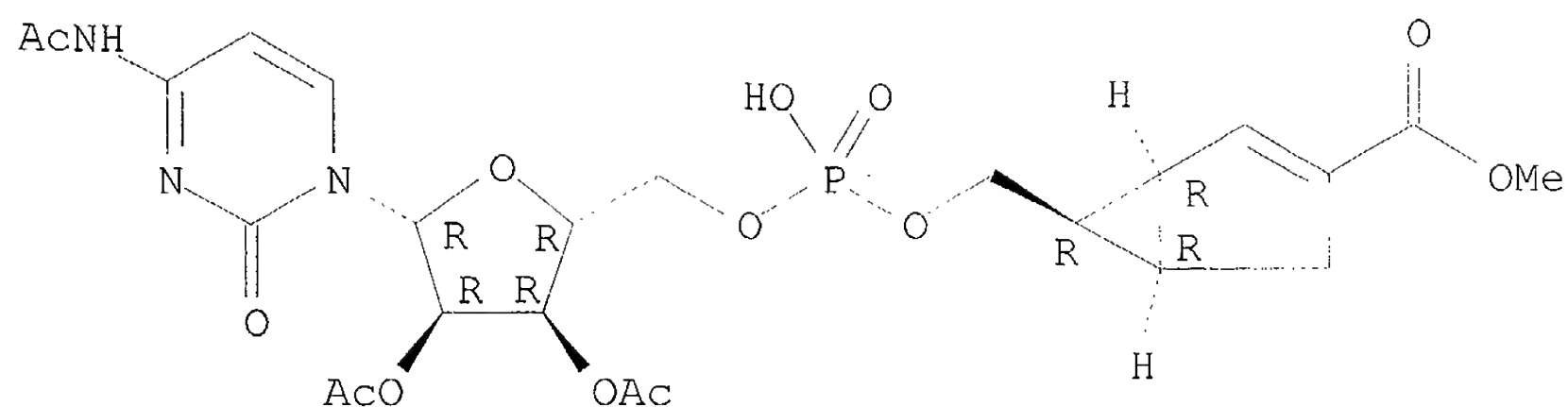
IT 340006-48-6P 340006-50-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of a nucleotides analog of the sialyl donor as inhibitor of sialyltransferases via Meinwald rearrangement and a palladium-catalyzed carbonylation reactions)

RN 340006-48-6 CAPLUS
 CN 5'-Cytidylic acid, N-acetyl-, mono[[(1R,5R,6R)-3-(methoxycarbonyl)bicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 340006-47-5
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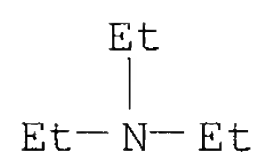
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



RN 340006-50-0 CAPLUS

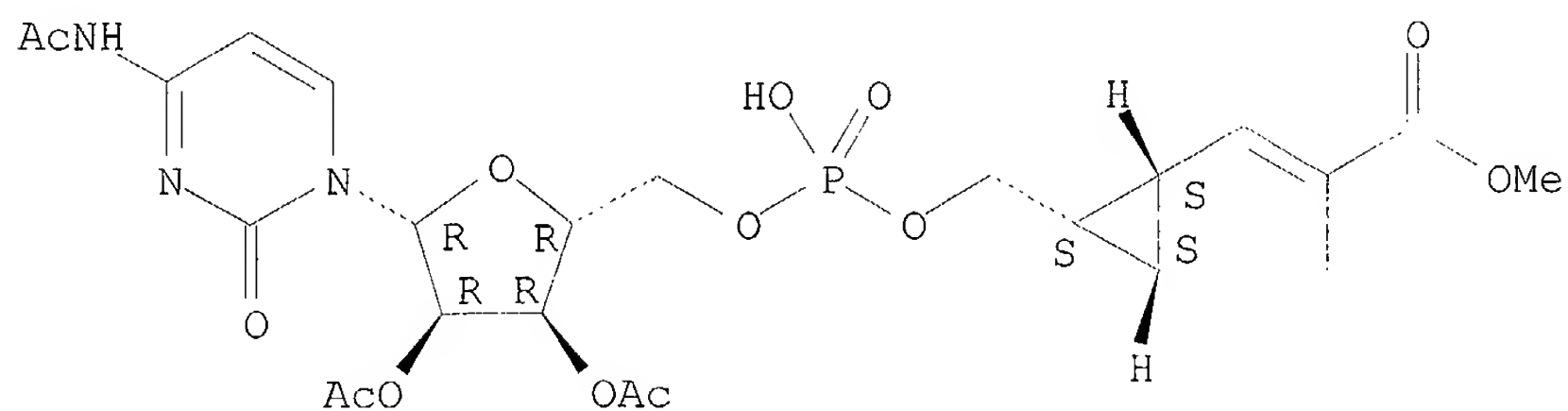
CN 5'-Cytidylic acid, N-acetyl-, mono[[(1S, 5S, 6S)-3-(methoxycarbonyl)bicyclo[3.1.0]hex-2-en-6-yl]methyl] ester, 2',3'-diacetate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 340006-49-7

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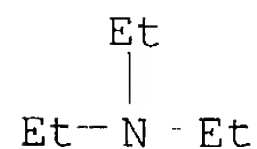
Absolute stereochemistry.



CM 2

CRN 121-44-8

CMF C6 H15 N



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS
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=> b caold
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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate
substance identification. Title keywords, authors, patent
assignees, and patent information, e.g., patent numbers, are
now searchable from 1907-1966. TIFF images of CA abstracts
printed between 1907-1966 are available in the PAGE
display formats.

This file supports REGISTRY for direct browsing and searching of
all substance data from the REGISTRY file. Enter HELP FIRST for
more information.

=> d que nos l17
L11 STR
L14 8 SEA FILE=REGISTRY SSS FUL L11
L17 0 SEA FILE=CAOLD ABB=ON PLU=ON L14

=> b home
FILE 'HOME' ENTERED AT 10:54:16 ON 03 DEC 2003

=> 

=> b reg
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STRUCTURE FILE UPDATES: 2 DEC 2003 HIGHEST RN 622845-74-3
DICTIONARY FILE UPDATES: 2 DEC 2003 HIGHEST RN 622845-74-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

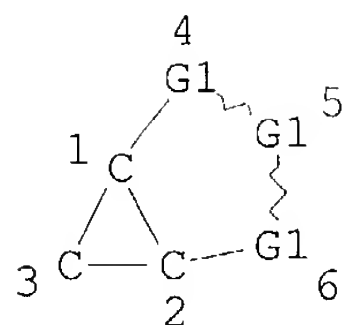
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d stat que l26

L9

STR



Search of Method Claim 16

VAR G1=C/O/S/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L19 1 SEA FILE=REGISTRY ABB=ON PLU=ON GLYCOSYLTRANSFERASE/CN
 L20 1325 SEA FILE=HCA ABB=ON PLU=ON L19
 L21 4350 SEA FILE=HCA ABB=ON PLU=ON (GLYCOSYLTRANSFERASE OR GLYCOSYLHY
 DROLASE OR GLYCOSIDE (W) (TRANSFERASE OR HYDROLASE))
 L22 655 SEA FILE=HCA ABB=ON PLU=ON (L20 OR L21) (L) (INHIBIT? OR
 BLOCK? OR ANTAG?)
 L23 SEL PLU=ON L22 1- RN : 5072 TERMS
 L24 5072 SEA FILE=REGISTRY ABB=ON PLU=ON L23
 L26 18 SEA FILE=REGISTRY SUB=L24 SSS FUL L9

100.0% PROCESSED 307 ITERATIONS
 SEARCH TIME: 00.00.01

18 ANSWERS

=> b hcap

FILE 'HCAPLUS' ENTERED AT 11:14:45 ON 03 DEC 2003
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FILE COVERS 1907 - 3 Dec 2003 VOL 139 ISS 23
 FILE LAST UPDATED: 2 Dec 2003 (20031202/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que nos 129

```

L9          STR
L19         1 SEA FILE=REGISTRY ABB=ON  PLU=ON  GLYCOSYLTRANSFERASE/CN
L20        1325 SEA FILE=HCA ABB=ON  PLU=ON  L19
L21        4350 SEA FILE=HCA ABB=ON  PLU=ON  (GLYCOSYLTRANSFERASE OR GLYCOSYLHY
          DROLASE OR GLYCOSIDE (W) (TRANSFERASE OR HYDROLASE))
L22        655 SEA FILE=HCA ABB=ON  PLU=ON  (L20 OR L21) (L) (INHIBIT? OR
          BLOCK? OR ANTAG?)
L23         SEL  PLU=ON  L22 1- RN :    5072 TERMS
L24        5072 SEA FILE=REGISTRY ABB=ON  PLU=ON  L23
L26        18 SEA FILE=REGISTRY SUB=L24 SSS FUL L9
L28        14 SEA FILE=HCA ABB=ON  PLU=ON  L26
L29         2 SEA FILE=HCA ABB=ON  PLU=ON  L28 AND L22

```

=> s 129 not 114

```

          14 L26
          1332 L19
          2502 GLYCOSYLTRANSFERASE/OBI
          880 GLYCOSYLTRANSFERASES/OBI
          2697 GLYCOSYLTRANSFERASE/OBI
              ((GLYCOSYLTRANSFERASE OR GLYCOSYLTRANSFERASES)/OBI)
          12 GLYCOSYLHYDROLASE/OBI
          9 GLYCOSYLHYDROLASES/OBI
          16 GLYCOSYLHYDROLASE/OBI
              ((GLYCOSYLHYDROLASE OR GLYCOSYLHYDROLASES)/OBI)
          24213 GLYCOSIDE/OBI
          43343 GLYCOSIDES/OBI
          48461 GLYCOSIDE/OBI
              ((GLYCOSIDE OR GLYCOSIDES)/OBI)
          14 TRANSFERASE/OBI
          2 TRANSFERASES/OBI
          16 TRANSFERASE/OBI
              ((TRANSFERASE OR TRANSFERASES)/OBI)
          12150 HYDROLASE/OBI
          3617 HYDROLASES/OBI
          13457 HYDROLASE/OBI
              ((HYDROLASE OR HYDROLASES)/OBI)
          768930 INHIBIT?/OBI
          158417 BLOCK?/OBI
          100736 ANTAG?/OBI
              209 (L20 OR L21) (L) (INHIBIT?/OBI OR BLOCK?/OBI OR ANTAG?/OBI)
              2 L14
          0 L29 NOT (L14)

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L31

=>

*Previously Printed**No New References in this search, L31.*